



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 24, 2015

Sherri Gray  
Consultant  
Vital Solutions, LLC  
P.O. Box 9932  
W. Palm Beach, FL 33419

Subject: Label Amendment – Revised Label Adding Claims  
Product Name: Vital Oxide  
EPA Registration Number: 82972-1  
Application Date: September 30, 2014  
Decision Number: 496036

Dear Ms. Gray:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Wanda Henson by phone at (703) 308-6345, or via email at [henson.wanda@epa.gov](mailto:henson.wanda@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Fuller', with a long horizontal stroke extending to the right.

Demson Fuller, Product Manager 32  
Regulatory Management Branch II  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Enclosure

# VITAL OXIDE®

## ACTIVE INGREDIENTS

Chlorine Dioxide.....	0.200%
Alkyl (60% C <sub>14</sub> , 30% C <sub>16</sub> , 5% C <sub>12</sub> , 5% C <sub>18</sub> ) dimethyl benzyl ammonium chloride .....	0.125%
Alkyl (68% C <sub>12</sub> , 32% C <sub>14</sub> ) dimethyl ethylbenzyl ammonium chloride .....	0.125%
OTHER INGREDIENTS.....	99.550%
Total .....	100.000%

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: (optional text)

**ACCEPTED**

**02/24/2015**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No.

**82972-1**

**FIRST AID: If in eyes:** Hold eye open and rinse slowly with water 15-20 mins. Remove contact lenses after first 5 mins. and continue rinsing. Call a Poison Control Center or doctor for treatment advice. Have product container or label with you when calling a poison control center or doctor, or going for treatment

**STORAGE AND DISPOSAL:** Store in original closed container in a cool, dry, place away from heat and open flame. Do not allow product to become overheated in storage. Avoid prolonged storage temperature above 40°C, 90°F. This may cause increased degradation of the product, which will decrease product effectiveness. Non-refillable. Do not reuse or refill this container unless the directions for use allow a different (concentrated) product to be diluted in the container. Container Disposal: Rinse and offer empty container for recycling. If recycling is not available, discard container in trash. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Discard excess or used (product) solution in drain with running water.

Manufactured by: Vital Solutions, LLC, PO Box 9932, W. Palm Beach, FL 33419  
Made in the USA (may include graphic of American flag)  
(Formulated by Vital Solutions)



As seen on TV (

Customer Service: 1-800-303-5405. [www.vitaloxide.com](http://www.vitaloxide.com)

Visit us at-or- For MSDS information (*Insert company website*)



[Contains no CFC's or other ozone depleting substances( )]



[Steel Recycle when empty ( )]



[Carpet and Rug Institute Seal of Approval Pet Stain and Odor Cleaning Chemical ( )]



{No rinse required for food-contact surfaces (D-2)}

EPA Reg. No. 82972-1 EPA Est. No. 85804-NC-1 EPA Est. No. 29909-CA-1 (See batch code for actual establishment number) NOTICE: Seller expressly warrants that the product conforms to its chemical description. There are no other warranties associated with the sale of this product.

#### **DIRECTIONS FOR USE:**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Test fabric for color fastness. Contains a dilute oxidizing agent. Do not mix with vinegar or acidic cleaners.

{Always refer to manufacturer's care instructions before using equipment or devices}

**Pre-cleaning Instructions:** Remove gross filth and heavy soil by cleaning. Spray product straight onto soils, scrub and wipe clean with a dry paper towel or cloth. For cleaning floors add one cup product per gallon of water in bucket and clean with sponge, mop, or pad.

#### **Cleaning and General Claims:**

To Clean [Nonporous] Surfaces -and/or- Floors: Spray soiled area, then wipe clean, -or- For spot cleaning, spray and wipe clean with damp sponge -or- mop or cloth.

For hard to reach areas, apply electrostatic, compression sprayer, cold fogger or misting device.

To Spot Clean Carpet: Spray on soiled area until wet. Gently blot area with a clean, damp, color safe cloth. Repeat as needed for (for stubborn stains). Let air dry.

To Use as a Pre-Spray (Pre-Cleaner) on Carpet. Spray a light even coating over the soiled area (until wet).

### **Cleaning and General Claims:**

- 100% biodegradable surfactant
- 7 in 1 Cleaner Technology
- A shining [pure] clean you can see/trust
- [Available in] Economical refill
- Bathrooms, sinks and faucets and floor areas
- Brightens
- Cleans
- Cleans bathroom soils
- Cleans blood stains
- Cleans everyday messes
- Cleans fingerprints
- Cleans food stains
- Cleans rust
- Cleans to a shine
- Cleans [up] grease and grime
- Cleans away allergens and odor
- Clear drying
- Compatible with equipment surfaces
- [Compatible with -or- Suitable] [for use on] equipment surfaces
- Compatible with -or- Suitable –or compatible with equipment surfaces for use on hospital surfaces
- Complies with VOC laws
- Cuts -and/or- removes grease -and/or grime -and/or- sweat
- Cuts cleaning time
- Designed -or- Ideal for daily [cleaning] [use]
- Easy [cleaning]
- Effective [cleaner -or- cleaning] [formula]
- Fecal matter
- For a cleaner, fresher household
- For direct application
- In testing per Boeing D6-7127Revision P specifications, product conformed to specified tests conducted.
- For easy cleaning
- For terminal cleaning
- Good for use with microfiber cloths
- Great for Kitchen[s] -and/or- bathroom[s] [too]
- Ideal for use in gyms -and/or- health clubs-and/or- wellness centers

Cleans beyond the surface

- Ideal for use in schools -and/or- daycare-and/or- universities -and/or- colleges -and/or- offices
- Ideal for use on high touch surfaces
- Just spray[,] [and] wipe [and you're done]
- Labor saving no-rinse formula
- Makes cleaning easier
- Multi surface cleaner
- No added [perfumes] [and] [or] [dyes] [and] [or] fragrance
- No fragrance added
- Fresh Scent
- Clean Scent
- No harsh chemical fumes -or- smell –or odor -and/or- build-up -and/or- residue
- No phosphates
- No rinsing
- No sticky or dulling residue on hard floors
- No sticky residue on carpets
- No VOCs
- Non-abrasive
- Non-corrosive
- Packaging made with [x%] recycled –or recyclable plastic
- Pleasant smell
- Proof is in the clean
- Removes dried on [blood] stains
- Smell of clean
- Will not harm most hard, nonporous surfaces
- Will not harm natural stones [Granite, Marble, Travertine]
- Fast & effective cleaning (for pet accidents)
- For a cleaner, fresher household
- Effectively (removes) (eliminates) tough (dirt) (stains) (spots) (and) (grime)
- Spot treatment for (pet stains and odors) (insert usage site)
- Cleans tough (pet spots) (spots) (and) (pet stains) (stains)
- (removes) (eliminates) (tough) (dirt) (and) (stains) (pet stains)
- Removes dirt, dust, and common allergens(\*\*Cockroach, Dust mite and Pet dander)\_ from (insert usage site)
- Cleans everyday (pet) messes
- Fast and effective cleaning

<p>For a deep clean Get a true clean (with) (this product) Okay (suitable) to use daily (Okay) (suitable) for daily use (Okay) (suitable) for weekly use (Okay) (suitable) for monthly use (Okay) (suitable) for regular use (Okay) for everyday use Great (cleaning) on your carpet (Money back) (Satisfaction) (Guarantee) (or your money back) (or its) (yours) (free) Guaranteed to remove stains &amp; odors or your money back Satisfaction guaranteed or your money back No Fragrance added formula does not require rinsing</p>	
---	--

### Deodorization:

**To Deodorize:**Product works by oxidation, not by masking of odors. Eliminates odors caused by fire smoke, tobacco smoke, musty odors, stale-cooking odors. Simply spray, fog, or wipe on full strength and let air dry to provide long lasting residual deodorizing action. When fogging to deodorize apply 1 quart per 2000 cubic ft. following fogger manufacturer's directions for use. Product must come into contact with the cause of the odor to be effective. For pet urine stains in carpet, blot urine as dry as possible then saturate stain with Product through carpet pad.

To DEODORIZE HVAC System Ductwork: Spray Product into system intake vents while system fan is running. Allow enough spray time for Product to contact air duct system surfaces, Repeat application as necessary.

To Deodorize or Freshen Carpet: Spray until slightly damp to eliminate (pet) odors. Product must come in contact with the cause of the odor to be effective.

### Claims:

- HEAVY DUTY ODOR ELIMINATOR
  - Fragrance free
- Contains no heavy metal, optical brighteners or dyes  
Deodorizes [-and/or- disinfects -or- helps deodorize]  
• Deodorizer [for institutional use] Deodorizes food odors [like garlic and onion] [left behind on kitchen surfaces] [after cooking]  
• Eliminates mold odors]  
• Eliminates odors caused by bacteria [and non-fresh foods]  
• Eliminates -or- reduces [kitchen] odors [in the trash can -or recycling bin odors -or- smells] [caused by bacteria]  
• Eliminates pet odors caused by bacteria  
• Eliminates tough odors  
• Kills odor-causing bacteria in the kitchen -or- bathroom  
• Kills odor-causing bacteria  
• Kills -or- eliminates bacteria that cause [bad] odors

### Deodorizations by air claims:

Air odor (eliminator) (deodorizer) (fighter)  
Controls odors in the air  
Controls (the toughest) (tough) (kitchen) (and) (bathroom) (pet) odors (in the air)  
Deodorizes (the air) with a (new) (fresh) (pleasant) (clean) fragrance  
Eliminates (pet) (food) (bad) odors (in the air)  
Fights odors in the air  
Gets rid of odors in the air  
It's ok to spray (to deodorize) (eliminate odors) (make your home smell fresh and clean)  
Leaves your home smelling clean and fresh  
Leaves your home (air) smelling clean (and fresh)  
Leaves a fresh clean scent  
Long lasting freshness  
(Now) Freshens (deodorizes) (the air)  
(Now) Freshens (deodorizes) (the air) and kills (odor) bacteria on surfaces  
Odor (fighter) (eliminator) (elimination) (for the air)

<ul style="list-style-type: none"> <li>• Odor eliminator</li> <li>• Removes -or- eliminates odors</li> </ul> <p>Strong cat odors Strong pet odors</p> <ul style="list-style-type: none"> <li>• [This effective product] eliminates odors at their source. [Does not just mask odors.]</li> <li>• Deodorizes areas that are hard to keep fresh smelling</li> </ul> <p>Use to control odors animal kennels Use to control odors barn stalls. Eliminates urine and other strong pet odors{cat} {dog} Eliminates pet odors Pet waste odors Cat Urine Fecal Odors Eliminates strong ammonia odors Eliminates strong sulfur odors Heavy duty odor eliminator removes strong, deep set pet odors</p>	<p>Perfect for eliminating your toughest odors (in the air)</p>
---	---

### Allergen Removal:

To [clean and] reduce specified allergens: [Set trigger to SPRAY.] Spray, [wait 1 minute]., and wipe excess. [Rinse.] Allow to air dry. [If streaking is observed, wipe with a clean, damp [cloth or] paper towel.]

#### Allergens:

- Cockroach matter -or- particles
- Dust mite matter -or- particles
- Pet dander -or- dog and cat dander

#### Claims:

- Reduces dust mite matter -or- particles, cockroach matter –or particles, and pet dander allergens
- Reduces Allergens[!]
- Removes Allergens
- Removes allergen from your home
- Cockroach matter -or- particles
- Dust mite matter -or- particles
- Pet dander -or- dog and cat dander
- Reduces allergy-causing particles, such as pet dander, and dustmite matter

### MILDEWSTAT:

**To Prevent Mold or Mildew on Floors, Walls, Ceilings & Fabric:** Remove as much surface dirt, mold, or mildew as possible by cleaning. Then spray on product from a distance of 12 inches until visibly wet and let air dry.

### Mildewstat Claims:

MOLD & MILDEW REMOVER *PREVENTS MOLD & MILDEW* ON HARD SURFACES & FABRIC

- [Inhibits] [Controls] mold -and/or- mildew
- Mold -or- mildew controller
- [This product] controls mold growth on hard and soft surfaces.
- This product inhibits growth of mold and mildew on surfaces
- [This product] [inhibits] [prevents] [controls] mold and mildew on
- Kills Mold and Mildew on Hard surfaces

## **HVAC:**

### **DIRECTIONS FOR USE: FOR ANTIMICROBIAL CONTROL IN HVAC SYSTEMS AND AIR DUCTS (INCLUDING ODOR CAUSING BACTERIA, MOLD MILDEW AND OTHER FUNGI)**

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT  
IN A MANNER INCONSISTENT WITH ITS LABELING

THE PERSON APPLYING THIS PRODUCT IS RESPONSIBLE FOR FOLLOWING THESE  
DIRECTIONS UNDER BOTH STATE AND FEDERAL LAWS.

#### **1.0 General**

This Product is designed to be used as one component of a comprehensive HVAC and duct maintenance program. The purpose of such a program is to assure that the HVAC system and ducts function in the manner they were designed to, remain free from mold and other microbial growth and other contamination, and continue in that condition. This Product should only be used in only those cases where visible microbial growth has been detected in the system and then only after removing that growth and identifying and correcting the conditions that led to that growth. It may also be used to inhibit growth on surfaces that normally become wet during operation of the system. These normally include (but are not limited to) evaporator coils, uninsulated piping, condensate drain pans, drain lines, silicon caulks, mist eliminators and cabinet housing components subject to wetting by mist or carryover of water. If you need help in understanding any part of these instructions or have additional questions after reading these instructions, DO NOT APPLY THIS PRODUCT until you have received the answers for all of your questions.

#### **2.0 Inspection**

Prior to inspecting, cleaning, treating, repairing or otherwise working on the HVAC or duct section, the HVAC system should be turned off or the section under repair physically isolated from sections in active use. Prior to any application of PRODUCT the system must be inspected for cleanliness and mechanical condition. When initiating any measures to repair, clean or treat HVAC system components or air ducts, industry standards from the American Society of Heating and Refrigeration Engineers (ASHRAE), National Air Duct Cleaners Association (NADCA), Indoor Air Quality Association (IAQA) and other organizations must be followed. HVAC systems should be routinely inspected for cleanliness by visual means. The NADCA Standard, Assessment, Cleaning and Restoration of HVAC Systems (ACR 2002 or the latest revision), provides minimum recommended inspection frequency schedules for ducts and other system components. More information on NADCA standards can be obtained from the NADCA web site at [www.nadca.com](http://www.nadca.com).

#### **2.1 Cleanliness Inspection**

According to NADCA Standards, HVAC system cleaning must be performed when any of the following conditions are found in the cleanliness inspection. If any of these deficiencies are found during inspection, cleaning in accordance with industry standards must be performed prior to the application of PRODUCT. At a minimum, these standards require removing all loose soil and debris with a HEPA filter equipped vacuum cleaner and complete cleaning of soil from all heat exchange surfaces using a special cleaner formulated so as to clean such soils effectively yet not damage heat exchange components or release unpleasant or potentially damaging fumes.

##### **2.1.1 Contamination**

- HVAC systems should be operated in a clean condition. If significant accumulations of contaminants or debris are visually observed within the HVAC system, then cleaning is necessary. Likewise, if evidence of microbial growth is visually observed or confirmed by analytical methods, then cleaning is required.
- If the HVAC system discharges visible particulate into the occupied space, or a significant contribution of airborne particles from the HVAC system into the indoor ambient air is confirmed, then cleaning is necessary.



- Heat exchange coils, cooling coils, air flow control devices, filtration devices, and air-handling equipment determined to have restrictions, blockages, or contamination deposits that may cause system performance inefficiencies, air flow degradation, or that may significantly affect the design intent of the HVAC system, require cleaning.
- Drain pans must be free from slime and sludge or other contamination. Badly rusted or corroded drain pans must either be repaired or replaced.
- Fans and fan housings must be free from accumulations of microbial growth and particulate matter.
- Filters must be in good condition and cleaned or replaced as needed to avoid exceeding the allowable pressure drop for the equipment.

If you need help in understanding existing industry standards, consult a qualified professional or contact Customer Service at 1-800-303-5405 for guidance and further direction or consult the information at [www.epa.gov](http://www.epa.gov) (search on "HVAC Systems" or "air ducts"). In addition, the following association and society Internet sites should be consulted for information on standards and guidelines they have developed:

ACCA - [www.acca.org](http://www.acca.org)

ASHRAE - [www.ashrae.org](http://www.ashrae.org)

NADCA - [www.nadca.com](http://www.nadca.com)

NAIMA - [www.naima.org](http://www.naima.org)

SMACNA - [www.smacna.org](http://www.smacna.org)

## 2.2 Mechanical Inspection

PRODUCT must be used only on HVAC system components and air ducts in sound mechanical condition as defined in 2.2.1 and 2.2.2 (below). The HVAC system components must be designed and installed in conformance with industry standards and guidelines. Prior to using the Product, inspect the HVAC system and ducts and assure that they are in sound mechanical condition. The following general guidelines, supplemented by industry standards from SMACNA, NAIMA, ASHRAE, ACCA and other organizations, must be followed:

### 2.2.1 Air Leaks and Mechanical Defects

The equipment housing, cabinets and ducts must be free from air leaks and other mechanical defects. Air leaks will promote condensation of water that causes microbial growth and will lead to failure of PRODUCT to protect the system adequately.

### 2.2.2 Design and Installation

ASHRAE, SMACNA, NAIMA and other industry organizations have established guidelines and standards for the design and installation of HVAC and duct systems. You should determine that the system components you wish to treat conform to industry practice. If you are not knowledgeable of industry guidelines and standards, consult a qualified professional or contact Customer Service at 1-800-303-5405 for assistance. In some situations, the inspection may reveal that a component of the HVAC or duct system is badly damaged or in such poor operating condition that it cannot be corrected through cleaning and/or minor repair. In these situations, the system should be replaced or rebuilt in conformity to the applicable industry standards prior to using PRODUCT. Some (but not all) of the conditions that would indicate the need for major repairs or replacement of the system include:

- Improper size of system or component - The system and all components must be sized to achieve correct airflow and be of the proper capacity for the load. When air-handling equipment is changed or new inlets or outlets added, the size of all components in the system should be recalculated and replacements made as needed.
- Physical damage - Crushed or physically damaged equipment may leak or fail to perform as designed. Deformed air ducts will restrict airflow and may leak (especially at joint areas). Damaged equipment must be repaired or replaced or if there is extensive damage, the entire system should be replaced.
- Badly corroded metal components including duct sections, housings and cabinets, coil assemblies, drain pans, fans and their housings and heat exchange surfaces.
- Loose, damaged, friable or missing insulation - Insulation is important in preventing moisture condensation and subsequent growth of mold and other organisms. If insulation (either interior or exterior) is damaged, missing or not properly fastened it must be repaired or replaced or the associated duct sections

replaced. Air handler, mixing, and VAV box housings are also normally insulated and this insulation should be checked for damage in a like manner. Removed components that are contaminated with mold and other microbial growth may spread contamination while being removed from the building. To prevent this, smaller items should be placed in plastic bags that should then be sealed before being removed. Larger items that cannot be safely packaged should be treated before being moved through occupied spaces. An appropriately labeled disinfectant can be used during treatment. Care must be used during treatment to assure that fumes from the agent being used are not released into occupied spaces. Products used should be used according to their label directions. Please contact Customer Service at 1-800-303-5405 for guidance on the appropriate disinfectant to use for treatment.

3.0 General Directions for PRODUCT usage PRODUCT effectively controls by inhibiting growth of odor causing bacteria, fungi, and other odor, stain or damage causing organisms in HVAC system components and air ducts in residential, commercial, institutional, and industrial buildings. PRODUCT also eliminates odors associated with bacteria, mold, mildew, smoke, animals, cooking, spoilage, musty and other odors and removes odor-causing organisms when used as part of such a comprehensive preventative maintenance program in HVAC systems and air ducts. PRODUCT is a bacteriostat, fungistat (mold and mildew), mildewstat and deodorizer for use in residential, commercial and industrial settings. It will not stain or bleach materials or fabrics and will not harm or damage HVAC system components.

PRODUCT is formulated for use in all kinds of HVAC components and air ducts including:

- Furnaces.
- Air Handlers.
- Packaged units including Rooftops and Packaged Terminal Air Conditioner (PTAC) units.
- Fan coil units.
- Air distribution components such as air handlers, mixing boxes, transfer boxes, transitions, and turning vanes, dampers, fans and fan housings, and associated components.
- Condensate drain pans.
- Unlined sheet metal ducts.
- Air supply and return ducts and plenums fabricated with plywood, OSB or other wood like material.
- Flexible air ducts fabricated of metal or plastic.
- Humidifiers.
- Dehumidifiers; both Desiccant and Refrigerated.
- Registers, Grills and other air intake and discharge devices.

Follow the directions below for the specific type of duct or component being treated. It is vital that the following directions be carefully read and understood prior to using the Product. If you have any questions, need further information, require clarification, or do not understand any of the directions, call Customer Service at 1-800-303-5405 prior to use.

### 3.1 Application Instructions

Wet the surfaces with the spray, giving special attention to cracks and crevices.

[Product] will not stain any materials not stained by water] we suggest testing for compatibility on surface of concern first. Allow ten to twenty minutes for drying. No rinsing or wiping is required. Following the elapsed drying time it is best practice to purge the system, by increasing the negative pressure through the outdoor exhaust or negative air machine or by turning on the vacuum used to pre-clean the HVAC system, while removing the duct openings seals. This will minimize the release of scent into the spaces served by the system.

### 3.2 Application Equipment and Devices

Refer to the precautionary statements for the Personal Protective Clothing and other special instructions that must be followed.

#### 3.2.1 Spray Applicators

Spray application is preferred on large surfaces that are easily accessible (such as plenums, coil assemblies, the interior of cabinets, housings with removable access panels, and in long runs of large diameter ducts).

The spray equipment chosen should provide a consistent fine (1-300 micron) particle size and uniform spray pattern. Powered medium pressure sprayers are preferred. However, airless sprayers are suitable. Where airless sprayers are used, the most satisfactory spray pattern will be achieved using a 0.01 1" spray tip. For other brands and options contact Customer Service at 1-800-303-5405. Pump up garden type sprayers can be used but care must be taken to maintain maximum pressure by pumping frequently and the spray nozzle must be adjusted for the finest spray pattern possible. During application achieve complete uniform coverage. Avoid excessive wetting and do not allow the spray to run or pool.

#### 3.2.2 ULV or Mist Generating Sprayers

ULV or mist or other wet small particle application is preferable where surfaces are irregular or less accessible. Equipment capable of generating particles in the 15 to 60 micron range is most satisfactory. Avoid use of thermal type fog generators. Contact Customer Service at 1-800-303-5405 for information on other devices. Generally a fog will carry and provide adequate coverage up to 8 feet from the point of application so adequate penetrations must be cut in cabinets or ducts to assure complete coverage without over wetting. SMACNA, NADCA and NAIMA have established standards and guidelines for making and sealing openings in HVAC system components and ducts. Operators should be trained on proper application techniques as well as correct duct penetration and sealing procedures using these standards and guidelines. Operators should also carefully read and follow directions for the brand of equipment used. Customer Service personnel should be contacted at 1-800-303-5405 for information on training for using various types of equipment. Housing and duct penetrations should be properly closed following application, in accordance with industry standards.

#### 3.2.3 Automated Atomizing or Spray System

There are a number of automated spraying systems on the market including those that are carried by a "robot" through air ducts. These may provide an excellent option for application of PRODUCT in parts of air ducts that are difficult to access if they produce the correct spray pattern and application quantity. These devices must be visually monitored using video or other means while applying spray so proper application rate will be maintained. Please contact Customer Service at 1-800-303-5405 regarding a specific device should you have questions.

#### 3.2.4 Brush, Mop or Wipe Application

Brush, Mop or Wipe Application may be specified by some facility maintenance or remediation plans. These techniques are generally more labor intensive than other methods and are normally used only when specifications require. These methods are suitable only for smooth uniform surfaces. Do not use on porous or non-uniform surfaces. If in doubt about a given surface, contact Customer Service at 1-800-303-5405 before proceeding. When using brush or mop application, tools and materials used should be reserved only for application of PRODUCT, kept clean and protected between uses and replaced when worn or visibly soiled. Natural fiber brushes are preferred although any quality brush is acceptable. Mops should be of the types that leave minimal lint behind. Micro-fiber or other non-linting cloths are preferable. Where other types of cloths are used, they must be soft enough that they absorb a sufficient quantity of liquid to provide uniform application. During Brush, Mop or Wipe Application, the applicator must have access to the surfaces being treated. Usually this will require entering the component or air ducts. In such cases, application must start from the point most distant from the point of entry. The applicator will then work from that point back to the entry point covering a 3-foot length of duct at a time. Apply to the top of the area to be treated first, followed by the sides then the floor. Overlap applications to assure complete coverage. Cover completely while avoiding runs or pooling.

### 3.3 Application Techniques

PRODUCT must be applied evenly to surfaces that are being treated. Even and uniform application is essential for satisfactory results. The procedures, equipment and techniques described below have been tested and provide the desired results. Other procedures, equipment or techniques may also achieve satisfactory results but should not be used without discussing the specific situation and equipment with a Customer Service Representative who can be reached toll free at 1-800-303-5405.

#### 3.3.1 Application from Exterior of the HVAC System or Air Duct

PRODUCT may be sprayed into existing access openings where these provide adequate access. Normally these consist of removable panels or access doors. Completely cover all nonelectrical components until they are thoroughly and uniformly covered using hand or powered spray equipment. This is the technique of choice for large penthouse or built up air handlers and other components with access panels or doors. When applying to ductwork, spray into openings at a minimum of every 8 feet. Existing supply openings can be used where they provide a clear view of the surfaces being sprayed so that uniform application can be achieved. However, additional penetrations will have to be made, as needed, so enough openings will be available to achieve total and uniform coverage.

Spray application is not an acceptable technique where openings are greater than 8 feet apart, additional openings cannot be made and properly sealed, and/or the duct geometry does not allow for uniform coverage. In such cases, application from within the HVAC system is necessary (see 3.3.2 below).

#### 3.3.2 Application from Within the HVAC System

When PRODUCT cannot be sprayed into openings at intervals throughout the HVAC or duct system, you must gain entry into the system and spray the Product onto interior surfaces until they are thoroughly and uniformly covered using hand or powered spray equipment. This is the most frequently used technique and is the technique of choice for air handlers, other components with access panels or doors and large diameter (generally 20" x 20" minimum) ducts where direct access can be gained to surfaces being treated. Some protection is provided for drain pans by excess PRODUCT that runs off of cooling coils when they are treated. Spraying PRODUCT, onto the surfaces of the pan or pouring into the drain pan until the bottom of the pan is uniformly wetted, can provide additional protection. Before treating the drain pan, check to determine that the drain line is clear and free running and that the drain pan is clean and free of loose corrosion. Replace badly deteriorated pans. Drain pans that do not drain completely and retain water may experience microbial growth even when treated. Level drain pans and otherwise adjust them so water completely drains from them.

#### 3.4. Fans and Fan Housings

Fans create air turbulence, which can lead to condensation of water that supports mold and other growth. As a result, fan blade and blower wheel surfaces as well as associated housings are especially prone to fouling from both microbial growth and soil accumulation. It may be necessary to partially or completely remove and disassemble these components so they may be properly cleaned prior to application of PRODUCT. Complete cleaning must take place before attempting to treat these components.

##### 3.4.1 Humidifiers and Dehumidifiers

Because of the amount of water present, humidifiers and dehumidifiers are often sites especially prone to microbial growth. They also attract and hold soil as growth related contamination builds up over time. This accumulated material must be thoroughly removed prior to treatment with PRODUCT. For some units, cleaning may also signal the need to replace pads, belts, wheels or service other components. The manufacturer of the unit being maintained should be consulted on the proper maintenance and cleaning procedure.

##### 3.4.2 Rate of Application

The recommended rate of application for PRODUCT varies depending on the surface being treated. Users of this Product must carefully follow the rate of application instructions provided below:

##### 3.4.3 Bare Metal and Flexible Ducts

Apply until surface is evenly wet. Mist or wipe coverage 1,000 ft<sup>2</sup> per gallon. Spray coverage 500 ft<sup>2</sup> per gallon.

If the above application rates result in surface runoff or liquid pooling on the bottom of the duct, lower the application rate until the surface is thoroughly and evenly wet without runoff or pooling. The exception to this is when treating coil assemblies. In this case, the spray should be applied generously until there is runoff into the drain pan so as to penetrate the coil assembly to the greatest possible depth.

##### 3.4.4 Semi Porous Surfaces such as Concrete or Plaster

Apply until surface is evenly wet. Mist coverage 500 ft<sup>2</sup> per gallon. Wipe not recommended. Spray

coverage 250-ft<sup>2</sup> per gallon. PRODUCT must penetrate into surface crevices and irregularities or it will not be effective. Inspect and assure that penetration is satisfactory. It may be helpful to apply half of the quantity needed for full coverage spraying from side to side then repeat the application moving the spray from top to bottom.

### 3.5 Frequency of Application

Normally, infrequent application (every 3 months for HVAC Systems and every 6 months to every two years for air ducts) will provide effective control. Some critical applications such as HVAC and duct systems serving critical health care spaces or clean rooms where it is essential to minimize the generation of particulate matter that may be released as a by Product of microbial growth may require more frequent treatment. Do not apply more often than monthly and then only if there is evidence of re-growth. This Product must only be used in those cases where visible microbial growth has been detected in the system and then only after removing that growth and identifying and correcting the conditions that led to that growth. Prior to reapplication in such cases, investigate to determine the cause of re-growth and correct that problem prior to re-application. Before embarking on a program of frequent application (more frequent than every three months) contact Customer Service at 1-800-303-5405 and discuss the specific application and situation. Also make sure the reoccurrence of microbial growth does not have another cause such as persistently high humidity, standing water or hidden leaks.

Prior to reapplication, the interior of the ducts and other surfaces must be inspected and found to be free of accumulated soil. If soil or growth is found, the cause should be determined and corrected and then the ducts cleaned in accordance with accepted industry practice. If microbial growth persists in air ducts following application re-inspect for duct leaks, carryover of water from cooling coils or humidifiers and other sources of moisture promoting growth. Eliminate such sources of moisture before retreating.

### 3.6 Returning the System to Operation following Application

Equipment being treated and the fans and blowers in the section of duct being treated must be turned off during application of PRODUCT. If the system cannot be shut down, the section of the system being treated must be isolated until treatment is complete. This will prevent the spray of fog from being blown away from the surface that is being treated.

Do not attempt to use the system fan or blower to carry PRODUCT to the surfaces within system. Such a practice will not result in uniform application of the Product to the surfaces being treated and will lead to ineffective control. Do not attempt this.

The system can be returned to full operation as soon as treatment is completed or at any time following completion of treatment. PRODUCT will dry on surfaces within 15 minutes following application. Extended drying time does not have an impact on effectiveness of treatment. PRODUCT should not be rinsed off following application so it will continue to inhibit the growth of microorganisms on treated surfaces.

When the above directions are followed properly, there will not be significant concentrations of Product released to the spaces served by a system being treated. There is no need to have occupants leave the building during application.

### **Sanitization:**

**To Sanitize Non-food Contact Hard Non-porous Surfaces:** *Staphylococcus aureus* (ATCC 6538) and *Enterobacter aerogenes* (ATCC 13048) Mix 1 part product with 9 parts water. Apply product as a one step cleaner sanitizer (5% organic soil load) by wetting thoroughly and let stand 5 minutes., wipe and allow to air dry. No rinse required.

**To Sanitize Hard Surface Flooring using a Device:** See Manufacturer's Instructions for Use.

**To Sanitize Food Contact Surfaces:** *Staphylococcus aureus* (ATCC 6538) and *Escherichia coli* (ATCC

11229) 99.999% sanitization of food contact surfaces. Mix 1 part product to 9 parts tap water. For glassware, utensils, cookware, and dishware: Scrape and pre-wash, then wash with a good detergent. Rinse with potable water, then sanitize by immersion in product for 1 minute (or longer if specified by government sanitary code). Place on a rack or drain board to air dry. Do not rinse or wipe. Food Contact Immobile Surfaces: (food processing equipment, counter tops, tables, appliances) Remove all gross food particles and soil by cleaning and rinse with potable water. Apply product by wetting thoroughly and let stand for 1 minute (or longer if specified by government sanitary code). Let surfaces drain and air dry. Do not rinse or wipe.

**To Sanitize Carpet:** For synthetic carpet fibers such as nylon, olefin, or polypropylene – not intended for use on wool carpets. Test for color fastness in an inconspicuous area. Carpet should be clean or free of excessive soil before applying. Mix 1 part product to 5 parts water. Or use full strength. Apply at a rate of 2.5 oz per sq. ft. product must come into contact with contaminate to work. Allow to dwell for 10 minutes. Do not rinse, use an extraction wand and dry stroke carpet to remove excess moisture. Carpet can air dry or fans may be used if carpet needs to dry faster. (For use in extractor machines.)(Including Hoover carpet extractors)

**To spot sanitize:** Spray a light even coating on area until wet. Allow to remain wet for 60 minutes (1 hour) (an hour). Let air dry. Vacuum.

**To spot clean & sanitize:** Spray a light even coating on soiled area (until wet). Allow to remain wet for 60 minutes (1 hour) (an hour). Gently blot area with a clean, damp, color-safe cloth. Repeat as needed (for stubborn stains). Let air dry. (Vacuum.) (Deep clean following your machine's guide.)

**To Sanitize Soft Surfaces:\*** [(Fabrics\*)]: Hold bottle upright 6" - 8" from surface. Spray until fabric is wet. DO NOT SATURATE. Let stand [for] 5 minutes. Allow to air dry. [For difficult odors or heavy fabrics, repeat application.] [Reapply as necessary.] [Gross] [heavy] soil must be removed prior to sanitizing.

### **Sanitization Claims:**

#### **99.999% Sanitization of food contact surfaces**

#### **99.9% Carpet Sanitization**

- 30 seconds is all it takes to kill [99.999% of] bacteria
- An effective non-food contact surface sanitizer
- Great for use as a non-food contact sanitizer in [insert use sites]]
- [Kills] [Destroys] [Eliminates] [99.999% of] bacteria on hard,nonporous surfaces in 30 seconds
- Kills Harmful Bacteria
- Kills 99.999% of Bacteria on hard nonporous surfaces
- Kills 99.9% of Bacteria on carpet
- Leaves surfaces sanitized
- No pre-cleaning required
- One-step sanitizer
- One-step cleaner sanitizer
- Sanitize in one step
- Sanitizes by killing [99.9% of] the bacteria [on hard, non-porous surfaces]
- Sanitizes by killing Staphylococcus aureus on hard, nonporous surfaces in 30 seconds
- Sanitizes hard, nonporous surfaces in 30 seconds
- Sanitizes fabrics, and hard surfaces
- Sanitizes hard and soft surfaces
- Sanitize soft surfaces[ including –or –on] and/or upholstery – and/or bedding – and/or curtains and/or sofas
- Use on [couches] [chairs] [blinds] [curtains] [and other soft surfaces]
- Sanitizer and odor neutralizer for soft – and/or hard surfaces



## **Disinfection:**

### **DIRECTIONS FOR USE:**

The following statement only to be used on institutional labels with medical use sites, medical devices and/or blood borne pathogens:

**CLEANING PROCEDURES:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of this product

**This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization of high level disinfection.** \*\*This product is not to be used as a terminal sterilant/high level disinfectant on any surface of instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contact intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body.

**SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATIONS AGAINST HIV-1, HBV, and HCV ON SURFACES/OBJECTS SOILED WITH BLOOD/BODY FLUIDS**

**KILLS HIV-1, HBV, AND HCV ON PRE-CLEANED ENVIRONMENTAL SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care settings or other settings in which there is expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and surfaces/ objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS), Human Hepatitis B virus, and Human Hepatitis C Virus.

When handling items soiled with blood or body fluids use disposable latex gloves, gowns, masks, or eye coverings.

**CLEANING PROCEDURES:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before application of this product.

**DISPOSAL OF INFECTIOUS MATERIALS:** Blood and other body fluids should be autoclaved and disposed of according to Federal, State, and local regulations for infectious waste disposal. **CONTACT TIME:** Allow surfaces to remain wet for 5 minutes.

**To PRE-CLEAN INSTRUMENTS PRIOR TO TERMINAL STERILIZATION/HIGH LEVEL DISINFECTION: AS A PRECLEANING SPRAY -** Place instruments into a suitable container. Spray this product onto instruments to thoroughly wet all surfaces. Let stand [for] up to 10 minutes]. Rinse instruments. A manual instrument cleaner - Thoroughly pre-rinse dirty instruments under running water to remove visible, gross debris. Immerse pre-rinsed instruments into an appropriate size container filled with this product. Scrub instruments using a stiff bristle brush until visibly clean. Submerge instruments while scrubbing. Rinse instruments thoroughly. Change solution daily. Follow with an appropriate disinfection process. Cleaning of critical and semi-critical devices must be followed by an appropriate terminal sterilization/high-level disinfection process.

### **Hospitals/Healthcare facilities:**

This product [-or- product name] cleans, disinfects and deodorizes hard, nonporous [hospital] [medical] surfaces in one step [with no rinsing required].

This product [-or- product name] is a one step [hospital-use] germicidal [disinfectant] cleaner and deodorant [odor counteractant] [odor neutralizer] designed for general cleaning, [and] disinfecting [deodorizing] [of] hard, nonporous inanimate surfaces. Removes dirt, grime, fungus, mold, food residue, blood and other organic matter commonly found in hospitals [in health care facilities [on medical surfaces]. It [also] eliminates odors leaving [restroom] surfaces smelling clean and fresh. Use where odors are a problem.

**To Disinfect Farm Premises, Poultry Houses, Animal Pens & Vehicles:** Remove all animals and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes, and other facilities and fixtures occupied or traversed by animals. Empty all troughs, racks, and other feeding and water appliances. Thoroughly clean all surfaces with soap or

detergent and rinse with water. Saturate all surfaces with product for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Allow to air dry. Ventilate buildings, cars, boats, and other closed spaces. Drain any pooled product and/or rinse standing product with potable water. Do not house livestock or employ equipment until treatment has been absorbed, or dried.

**To disinfect food processing premises:** floors, walls and storage areas, hold container six to eight inches from the surface to be treated and spray area until it is covered with the solution. Allow this product to penetrate and remain wet [for] [contact time listed [below] [or] [on label]] [10 minutes]]. Heavily soiled areas must be pre-cleaned before using this product. Food products and packaging materials must be removed or carefully protected prior to using this product.

**Disinfection of animal quarters and kennels:** For disinfection of pre-cleaned animal quarters and kennels, apply this product [-or- product name]. Remove all animals and feed from premises. Remove all litter and droppings from floors, walls and surfaces of facilities occupied or traversed by animals. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate the surfaces with the disinfecting solution for contact time of 10 minutes. Ventilate building and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.

**To Clean and Disinfect in a Veterinary Application:** Use to clean and disinfect hard, nonporous surfaces such as feeding and watering equipment, cages, utensils, instruments, kennels, stables, catteries, etc. Remove all animals and feed from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings, and manure from walls, floors, and surfaces of facilities occupied or traversed by animals. Empty all feeding and watering equipment. Preclean all surfaces with soap or detergent and rinse with water. Saturate surfaces with this product and let stand [for] 10 minutes. [To kill mold and fungi, let stand [for] 10 minutes] [at room temperature].] Ventilate buildings and other closed spaces.

**To Disinfect Hard Non-porous Surfaces:** For disinfecting pre-cleaned hard non-porous surfaces such as glass, plastic, painted wood, laminate, chrome, stainless steel, polyurethane coated hardwood floors, glazed ceramic tile, sealed concrete & linoleum floors. Types of items include: Exterior of appliances, bed frames, cabinet handles, wheelchairs, child car seats, counters, cribs, doorknobs, tables, tubs, exterior toilet surfaces, faucet handles, handrails, jungle gyms, keyboards, light switch covers, patio furniture, showers, sinks, stovetops, telephones, toys, walls, waste containers. Apply product full strength to pre-cleaned hard non-porous surfaces, wetting thoroughly with spray, sponge, mop, or by immersion in solution. Allow surfaces to remain wet for 5 minutes for virus inactivation – 10 minutes for bacteria disinfection. For immersion replace solution daily, or more frequently if it becomes significantly soiled or diluted **Fogging and Misting:** product can be applied by fogging or misting to disinfect hard, nonporous surfaces. Apply by fogging or misting until surface is moist using equipment manufacturer's directions for use. Remove or carefully protect all food and food packaging materials prior to treatment. Vacate treatment area and do not reenter treated area until air is clear (minimum 20 minutes to reentry). For disinfection by ULV misting machine application, see the product Supplemental Bulletin specific for equipment to be used.

#### Disinfectant Claims:

- Antibacterial [spray] [action] [formula]
- An effective disinfectant for use in the kitchen, bathroom, bedroom, and other areas
- Antibacterial [Formula] [disinfects]
- Antibacterial -or- germicidal [on hard, nonporous surfaces] [for kitchens and bathrooms]
- Antibacterial -or- germicidal [formula]
- Bactericidal
- [Bathroom][,] [and] [restroom][,] [and] [kitchen] disinfectant

- Just one step kills [99.9% of] bacteria
- Kills 19 -or- insert number smaller than 19 microorganisms
- Kills and cleans
- Kills -and/or- [removes] [99.9% of] bacteria -and/or- germs
- and/or- viruses\*\* from toys
- Kills bacteria and viruses
- Kills -and/or- [eliminates] [disinfects] [destroys] [removes]
- [attacks] [gets rid of] [99.9% of] bacteria -and/or-



<ul style="list-style-type: none"> <li>• Broad spectrum -or- hospital disinfectant</li> <li>• Disinfectant</li> <li>• Disinfectant [for institutional use]</li> <li>• Disinfects &amp; [and] Deodorizes</li> <li>• Disinfects by killing microorganisms on hard, nonporous surface such as stainless steel, chrome, plastic, glazed ceramic, and mirrors.</li> <li>• Disinfects in one step</li> <li>• Disinfecting spray</li> <li>• Disinfect[s]</li> <li>• Disinfects [to kill the germs]</li> <li>• Disinfects [washable] kitchen surfaces including killing [99.9% of] germs -or- Disinfects [washable] kitchen surfaces including killing [99.9% of] bacteria -and/or- viruses -and/or- fungi -or- Disinfects [washable] kitchen surfaces including killing [99.9% of] bacterial[,] [and] viruses[,] [and] fungi</li> <li>• Easily disinfect -or- Ready-to-use spray [to easily disinfect]</li> <li>• For [hospital] [commercial] [industrial] [&amp;] [institutional] use</li> <li>• For Healthcare Facility use</li> <li>• For Hospital use</li> <li>• Germicidal</li> <li>• Hard[, nonporous] surface disinfectant</li> <li>• Hospital disinfectant</li> <li>&gt; Kills [99.9% of] germs</li> <li>• Kills [99.9% of] bacteria and viruses (on hard surfaces)</li> <li>• Kills [99.9% of] [kitchen] [and] [bathroom] bacteria</li> <li>&gt; Kills [99.9% of] insert organism from list -or- Kills of the following organisms insert organism from list</li> <li>&lt; Kills bacteria -or- germs -or- viruses on washable kitchen -and/or bathroom surfaces and fixtures</li> </ul>	<p>germs -and/or viruses** on [use sites]Kills Harmful Bacteria</p> <ul style="list-style-type: none"> <li>• One step cleaning and disinfecting</li> <li>• [One-step] Disinfectant cleaner</li> <li>• Oxidizing agent to provide disinfection</li> <li>• Ready to use disinfectant cleaner</li> <li>• Simply clean and disinfect in one step</li> <li>• Touch up cleaning/disinfection</li> <li>• Tough on germs, easy on surfaces</li> <li>• Tough on germs, easy to use around patient[s] [areas]</li> <li>• Tough on germs, easy enough for everyday use</li> <li>• Two in one, no sacrifice on cleaning and disinfecting</li> <li>• Two in one, cleaning and disinfecting</li> <li>• Use in places you are concerned about bacteria -and/or- viruses</li> <li>-and/or- germs</li> <li>• Use -or- cleans and disinfects on healthcare surfaces</li> <li>• Versatile cleaner disinfectant</li> <li>• Virucide -or- Virucidal</li> </ul>
--	---

#### **Hard Surface Sanitization No Rinse Required: 30 sec contact time**

Escherichia Coli (ATCC 11229)

Staphylococcus aureus (ATCC 6538)

#### **To Sanitize Soft Surfaces: 5 minute contact time**

S. aureus ATCC 6538

E. aerogenes ATCC 13048

#### **Carpet Sanitization: 10 Minute contact time**

Enterbacteraerogenes (ATCC 13048)

Staphylococcus aureus (ATCC 6538 )

#### **Mildewstat:10 Minute contact time**

Aspergillus Niger ATCC 6275

<b>Disinfection Bacteria 10 minute contact time</b>
Pseudomonas Aeruginosa ATCC 15442
Acinetobacterbaumannii ATCC 19606
Staphylococcus aureus MRSA ATCC 33592
Listeria monocytogenes ATCC 15313
Legionella Pneumophila ATCC 33153
Salmonella enterica ATCC 10708
Staphylococcus aureus ATCC 6538
Klebsiellapneumoniae (NDM-1) ATCC BAA-2146
Escherichia Coli ATCC 11229

<b>Disinfection Virus 5 minute contact time</b>
Rotavirus, Strain WA
Hepatitis C Virus Bovine Viral Diarrhea Virus
Hepatitis B Virus Duck Hepatitis
Norovirus Feline Calicivirus
Murine Norovirus (MNV-1)
Swine Influenza (H1N1) **
Respiratory Syncytial virus, ATCC VR-26
Human Immunodeficiency Virus (HIV Type 1) Strain HTLV-IIIb
Influenza B Virus (Strain B/Taiwan/2/62), ATCC VR-1735
Hepatitis A Virus ATCC VR-1541

#### **AREAS OF USE INCLUDE:**

homes, vehicles, schools & daycare, gyms & locker rooms, sports gear, hospitals, nursing homes, laundry rooms, veterinary, pharmacies, ambulances, barber shops, laboratories, restaurants, boats, ships, federally inspected meat & poultry processing plants, farms, animal pens and poultry houses, egg processing premises, hatcheries, swine premise sanitation, refrigerated storage units (empty & disconnected), airplanes, trains, trucks, buses & automobiles. Use as a mold & mildewstat on hard non-porous surfaces (i.e, tiles) and soft surfaces (i.e, fabrics)”

<b>Medical Use Sites:</b>	
Ambulances -or- [Emergency Medical]	[Medical] Clinics
Transport Vehicles	Medical Facilities
Ambulatory Surgical Centers (ASC)	Medical -or- Physician's -or- Doctor's Offices
Anesthesia Rooms or Areas	Newborn -or- Neonatal [Nurseries]
[Assisted Living -or- Full Care] Nursing Homes	[Intensive Care] Units [NICU]
Carts	Nursing Homes
CAT Laboratories]	Nursing -or- Nurses' Stations
Central Service Areas	Operating Rooms
Central Supply Rooms -or- Areas	Ophthalmic Offices
Critical Care Units -or- CCUs	Orthopedics
Dialysis Clinics [Facilities]	Out-Patient [Surgical Centers (OPSC)]
Doctors' Offices	[Clinics] [Facilities]
Donation Centers [blood] [plasma] [semen]	Patient Areas
[milk] [apheresis]	Patient Restrooms
Emergency Rooms -or- ERs	Patient Rooms
Eye Surgical Centers	[Pediatric] Examination Rooms -or-Areas
Health Care Settings -or- Facilities	Pediatric Intensive Care Units [PICU]
Home Health Care Settings	Pharmacies
	Physical Therapy Rooms -or- Areas
	Physicians' Offices

Hospital] Kitchens Hospices Hospitals Intensive Care Units -or- ICU[s] [areas] Isolation Areas Laundry Rooms Laboratories Long Term Care Facilities	Psychiatric Facilities Radiology -or- X-Ray Rooms -or- Areas Recovery Rooms Rehabilitation Centers Respiratory Therapy Rooms -or- Areas Restrooms Surgery Rooms -or- Operating Rooms -or- ORs Waiting Rooms -or- Waiting Areas
--	---

<b>Medical Use Surfaces:]</b> Hard, Nonporous Surfaces Associated with the Following: anesthesia machines aphaeresis machines autoclave exteriors bathroom doorknob bedpans bedrails [bedside] commodes bedside tables blood pressure cuffs blood pressure (BP) monitors] cabinet handles call boxes CAT -or- Computerized Axial Tomography equipment) carts cellular phones charging stations closet handles coated mattresses coated pillows [computer] mice computer tables cords counters [crash] [emergency] carts desktops diagnostic equipment] dialysis machines] docking stations [exam -or- examination] tables exterior surfaces of air vents -or- air vent exteriors external surfaces of [medical] equipment -or- [medical] equipment surfaces [external] [surfaces of] ultrasound transducers [-and/or- probes]] exterior of pipes footboards glucometers] gurneys [hard, nonporous] edges of privacy curtains hard, nonporous hospital -or- medical surfaces	isolettes IV [stands] [pumps] [poles] large surfaces loupes mammography equipment] [Mayo] [instrument] stands medication carts mobile devices mobile workstations mouse pads MRI -or- Magnetic Resonance Imaging equipment nurse-call [devices] [buttons] [and cords] operating room tables and lights operator light switches oxygen hoods overbed tables paddles pagers] [patient] chairs patient monitoring equipment] patient support and delivery equipment] phlebotomy trays physical therapy (PT) equipment portable bathrooms prescription container exteriors pulse oximeters PVC tubing reception counters -or- desks -or- areas remote controls scales side rails slit lamps small surfaces spine backboards stethoscopes stools stretchers surfaces in and around toilets in patient rooms toilet handholds toilet[s] [rims -or- seats] traction devices walls [around toilet] [in patient rooms]
--	--

hard, nonporous surfaces headboards [hard, nonporous] high touch surfaces [hospital -or- patient] bed[s] [springs] [railings] [frames] [linings] infant incubators and care cribs infant warmers [inner] [inside of] drawers	wash basins safety rails Hard non-porous whirlpool surfaces Wheelchairs <b>Medical Use Surfaces:]</b> Soft Surfaces Curtains Bedding Sofa's Fabric's
---	--

### **Dental Use Sites:]**

Dental Offices Dental Operatories  
Examination Rooms Dental -or- Dentists' Offices

### **Dental Surfaces:**

amalgamators-and/or-dental curing lights  
endodontic equipment such as apex locators  
pulp testers and motors  
dental countertops hard, nonporous dental reception counters -or- desks -or- areas  
dental operatory surfaces  
light lens covers

### **Veterinary Use Sites:]**

Use Sites:  
Animal [Pet] Housing [Kennels] [Facilities](Pens)  
(Cages)  
Animal Holding Areas  
Animal Life Science Laboratories  
[Animal -or- Pet] Grooming Facilities  
Animal Transportation Vehicles  
Breeding Establishments  
Dairy Farms  
Equine Farms  
Farms  
Kennels

Litter Boxes  
Livestock -and/or- Swine -and/or- Poultry Facilities  
Pet [Areas] [Quarters]  
Pet Shops -or- Stores  
Pet waters and feeders  
Small Animal Facilities  
Tack Shops  
Veterinary Clinics -or- Facilities  
Veterinary [Offices] [Waiting Rooms]  
Veterinary -or- Animal Hospitals  
Veterinary Examination Rooms  
Veterinary X-ray Rooms  
Veterinary Operating Rooms  
Zoos

### **Veterinary Use Surfaces:]**

animal equipment  
automatic feeders  
cages  
surfaces of fountains  
exterior surfaces of watering appliances  
feed racks  
hard, nonporous veterinary surfaces  
pens  
reception counters -or- desks -or- areas  
stalls  
troughs  
veterinary care surfaces

**Food Service Use Sites:]**

Banquet Halls  
Bars  
Cafeterias  
Catering Facilities  
Commercial -or- Institutional Kitchens  
Delis  
Fast Food Chains -or- Restaurants  
Food Preparation and Processing Areas School Kitchens  
Food [Service -or- Processing] Establishments  
Food Serving Areas  
Vending Machines  
Water Coolers  
Water fountains

**Food Service Surfaces:]**

dish racks  
drain boards  
food cases  
food trays  
freezer exteriors  
hoods  
[kitchen] appliance exteriors  
microwave exteriors  
plastic -or- metal outdoor furniture  
refrigerator exteriors  
salad bar sneeze guards

**Miscellaneous/General  
Use Sites:**

Airplanes [Airports]  
Ambulances  
Athletic [Recreational] Facilities  
Automobiles  
Barber Shops  
Basements  
Bathroom [s]  
Bathroom -or- Locker Room  
Facilities  
Beauty Salons  
Bedroom [s]  
Blood Banks  
Boat interiors  
Bowling Alleys  
Bus interiors  
Butcher Shops  
Cafeterias  
Camper interiors  
Car interiors  
Churches  
Colleges  
Convenience Stores  
Correctional Facilities  
Curtains  
[Damp] Storage Areas

Garbage] [Waste] Storage Areas  
Living Room  
Locker Rooms  
Lodging Establishment  
Lounges  
Malls  
Manufacturing Plants -or-  
Facilities  
Markets  
Mass Merchandisers, Discount  
Retailers  
-and/or- General Merchandise  
Stores  
Mobile Homes  
Mortuaries  
Motels  
Motor Home Interiors  
Mudrooms  
Nurseries  
Office[s] [Buildings]  
Pet Animal Quarters  
Pet Areas  
Crates  
Carries  
Pet Bedding  
Pet Car Seats  
Pet Feeders

Subways  
Supermarkets  
Tattoo Parlors  
Toolsheds  
Transportation Terminals  
Trains  
Trolleys  
Universities  
Upholstery  
Vacation Homes  
Warehouse Clubs

Day Care Centers Den[s] Dining Room Dorms Dormitories Elevators Emergency Vehicles Factories Fast Food Restaurants [Food Processing] [Manufacturing] Plants Funeral Homes Gas Stations Grocery Stores Gymnasiums -or- Gyms Health Club[s] [Facilities] Home[s] Home Centers Hotels Industrial Facilities Institutional Kitchens [Institutional] Laundromats Institutions Kennels Kitchen[s] [Surfaces] Laboratories Laundromats Laundry Room[s]	Pet Water Dishes Dog Houses Dog Runs Pet Toys Litter Boxes Bird Cages Cage Accessories Feeder & waters Small animal cages Pharmacies Play Areas-or-Rooms [Police -and/or- Fire] Vehicles Produce Areas Public Facilities Public Restrooms Recreational Centers -or- Facilities Rental Cars Rest Stops Restroom[s] -or- Restroom Areas Retail Businesses School Buses Schools Shelters Ships Shopping Centers Shops Shower Rooms Sports Arenas -and/or- stadiums Storage Rooms -or- Areas	
--	---	--

<b>Miscellaneous/General Surfaces:</b> cabinet knobs appliance exteriors Armchairs [baked] enamel Bassinets Bathroom mats [bathroom] fixtures [bathroom] [kitchen] faucet[s] [handles] [bath]tubs bed frames behind and under counters behind and under sinks boat interiors booster chairs Box Springs brush handles burner trays Cabinets Car Seats Car Seat Upholstery	exercise [machines] [equipment] exhaust fans exterior -or- external toilet surfaces exterior -or- external urinal surfaces fabric faucets [filing] [medicine] cabinets free weights freezer exteriors furniture garage surfaces garbage-or-trash cans glazed ceramic [restroom surfaces] glazed [ceramic] tile[s] glazed porcelain [tiling -or- tile] grill surfaces [grocery [store] -or- supermarket] carts [handles] [child seats] gymnastic] equipment	stretchers synthetic marble tables [tabletops] [tiled] walls Tires [Exterior of toilet [flush]] [telephone][cabinet] [dishwasher][door] handles linoleum lockers metal metal blinds metal work benches microwave exterior office machinery office -or- bedroom -or- bedside furniture patio furniture pencil sharpeners pet areas -or- surfaces Pillow(s) [plastic] fly swatters plastic laundry hampers -or- baskets plastic patio furniture -or- lawn chairs [plastic] shower curtains
--	--	--

car interiors Carpets carts chairs -or- arm chair [children's] furniture closets [clothes] [diaper] hampers coated ceilings cooler exteriors couch(es) counters -or- countertops cupboards cribs crutches crystal (non-food contact areas) dashboard desk[s] [tops] diaper pails [dining] [fast food] [kitchen] [picnic] [play] [restaurant] [tray] [diaper -or- infant] [changing] [tables] -or- [areas] -or- [stations] dining room surfaces -and/or- tables -and/or-fast food restaurant tables door[s] [handle[s]] [frames]] Doorknobs Drawer pulls Dressing carts Elevator buttons Exercise balls Exercise bands	Hampers gym bags [hand]railings -or- rails hard, nonporous floors [around toilets] [hard] plastic -or- vinyl headsets helmets high chairs (non-food contact surfaces) [kids'] play [structures] [equipment] [furniture] [tables] [kitchen] appliance exteriors kitchen appliance exterior[s] [surfaces] Laundry Bags light fixtures -or- switches -or- panels rocking chairs RV interiors sealed fiberglass shelves [and drawers] shin guards shoes shopping carts shoulder pads shower[s] [area] [curtains] [doors] [stalls] [walls] signs sink[s] [basins] seats sports equipment stainless steel stall doors staplers steering wheel stools	plastic surfaces associated with: floors, walls, Mirrors, toilets, urinals, sinks, shower rooms and locker rooms Playpens portable toilet exteriors range hoods recycling bins refrigerator exterior [door handles] tray tables tubs Upholstery uniforms urinals vanity tops -or- vanities vehicle interiors vending machine surfaces [vinyl] linoleum -or- wallpaper walkers walls wash basins [washable] kitchen[s] [surfaces] washers/dryers -or- washing machine exteriors] wastebaskets weight machines whirlpool tubs -and/or- Jacuzzis window [blinds] [shades] Window treatments windshields [wrestling] [exercise] mats Tools towel dispensers toy boxes-or-storage bins trailers Exterior of toilet [training] toilets trash cans -or- compactors Bedding (Bedspreads) Back Packs Blankets (Comforters) Draperies Duvet Cover(s) Stuffed Animals
--	--	---